



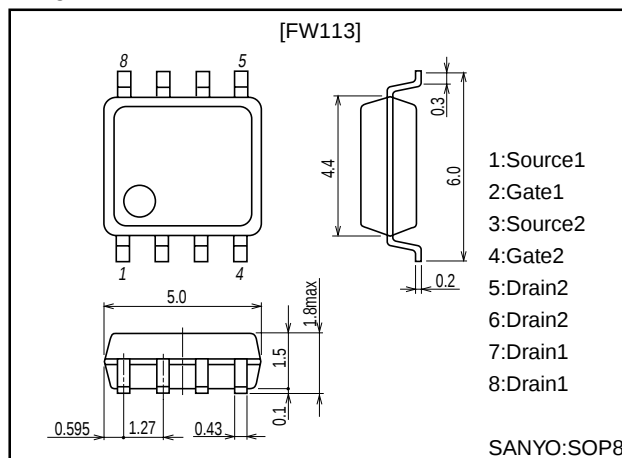
S/W Load Applications

Features

- 4V drive.
- Low ON resistance.

Package Dimensions

unit:mm

2129

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		-30	V
Gate-to-Source Voltage	V_{GSS}		±20	V
Drain Current (DC)	I_D		-5	A
Drain Current (pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	-32	A
Allowable Power Dissipation	P_D	Mounted on ceramic board (1000mm ² ×0.8mm) 1unit	1.7	W
Total Dissipation	P_T	Mounted on ceramic board (1000mm ² ×0.8mm)	2.0	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

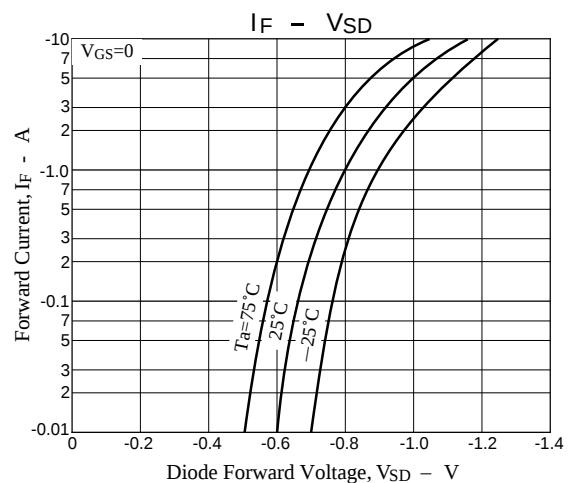
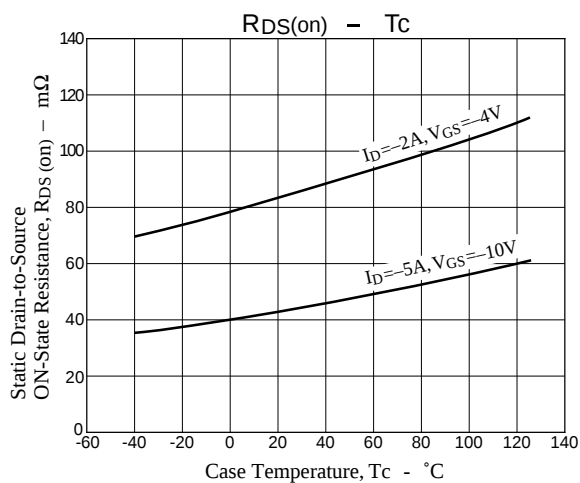
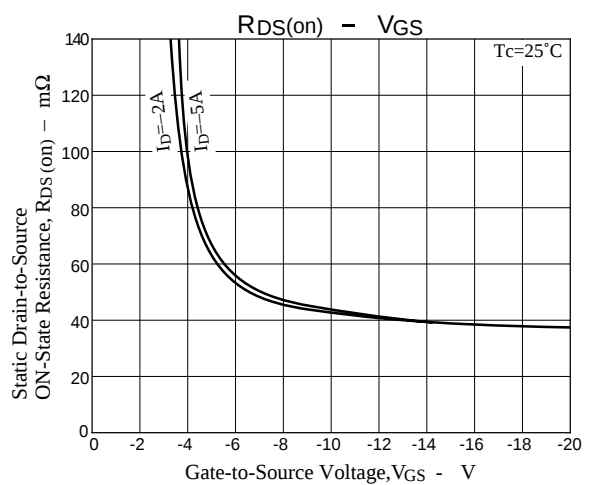
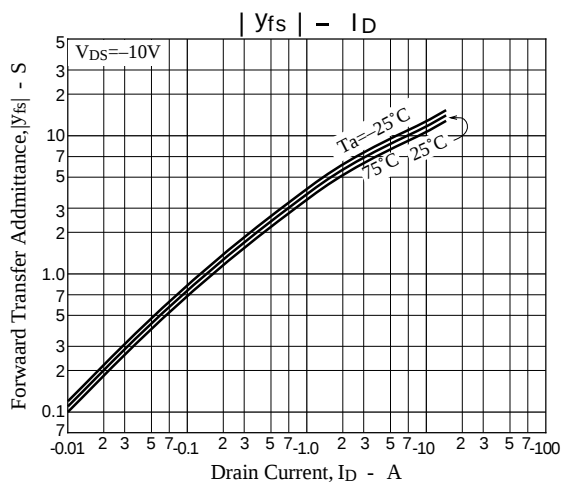
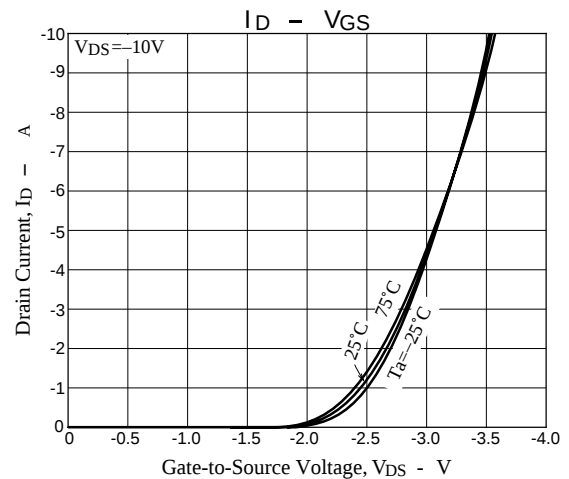
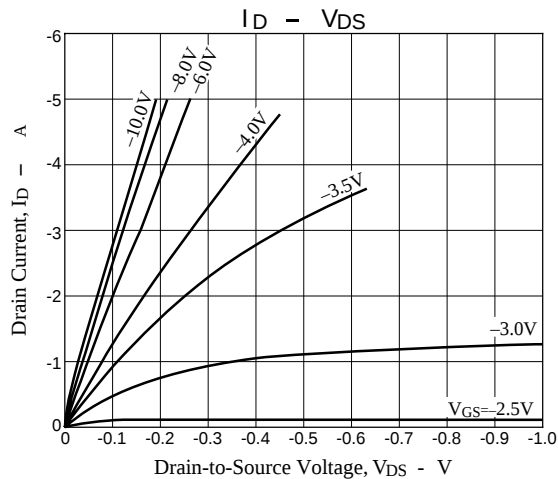
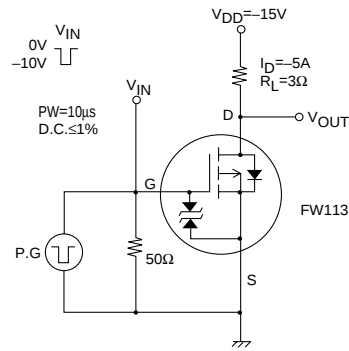
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA$, $V_{GS} = 0$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V$, $V_{GS} = 0$			-100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 16V$, $V_{DS} = 0$			±10	μA
Cutoff Current	$V_{GS(off)}$	$V_{DS} = -10V$, $I_D = -1mA$	-1.0		-2.5	V
Forward Transfer Admittance	y _{fs}	$V_{DS} = -10V$, $I_D = -5A$	5	8		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)1}$	$I_D = -5A$, $V_{GS} = -10V$		42	53	mΩ
	$R_{DS(on)2}$	$I_D = -2A$, $V_{GS} = -4V$		85	120	mΩ
Input Capacitance	Ciss	$V_{DS} = -10V$, f=1MHz		820		pF
Output Capacitance	Coss	$V_{DS} = -10V$, f=1MHz		470		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = -10V$, f=1MHz		230		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		15		ns
Rise Time	t _r	See specified Test Circuit		150		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit		85		ns
Fall Time	t _f	See specified Test Circuit		90		ns
Total Gate Charge	Qg	$V_{DS} = -10V$, $V_{GS} = -10V$, $I_D = -5A$		25		nC
Gate-to-Source Charge	Qgs	$V_{DS} = -10V$, $V_{GS} = -10V$, $I_D = -5A$		5		nC
Gate-to-Drain ("Miller") Charge	Qgd	$V_{DS} = -10V$, $V_{GS} = -10V$, $I_D = -5A$		7		nC
Diode Forward Voltage	V _{SD}	$I_S = -5A$, $V_{GS} = 0$	-1.0	-1.5		V

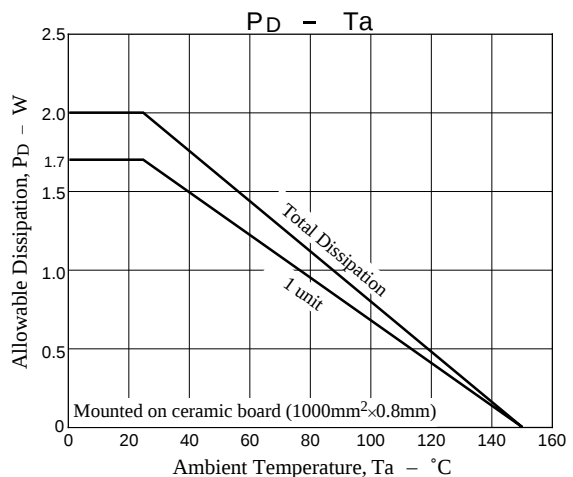
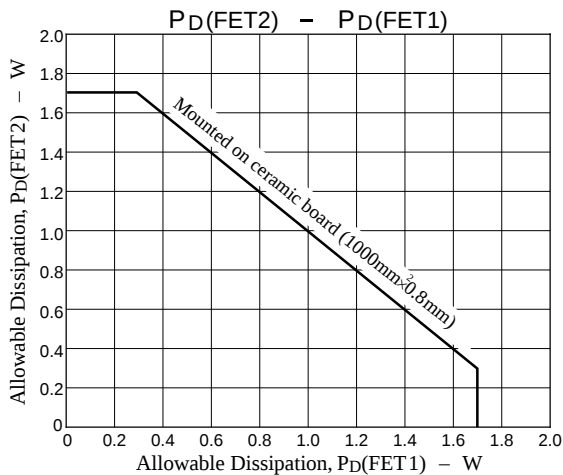
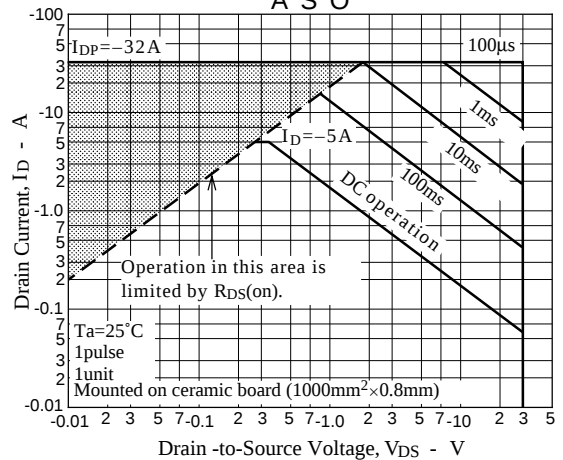
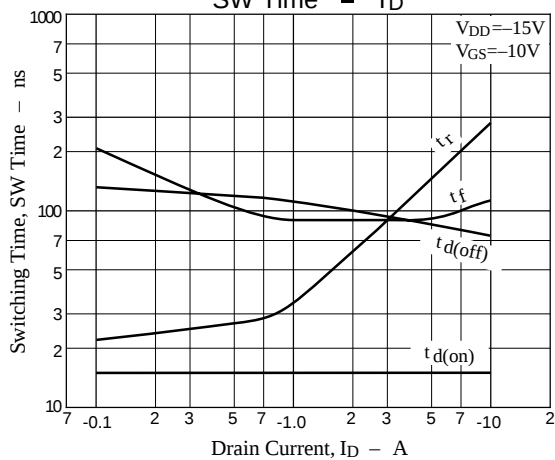
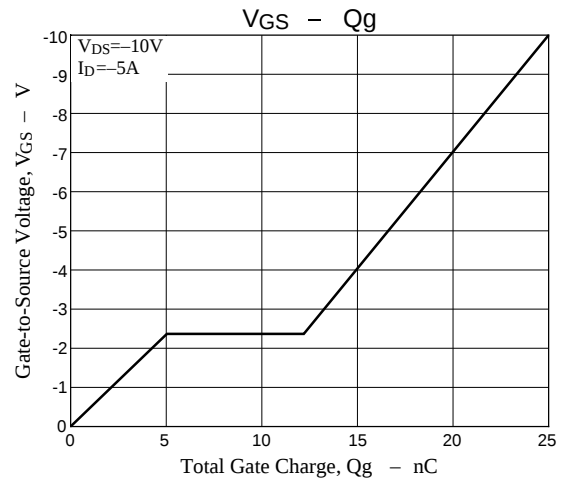
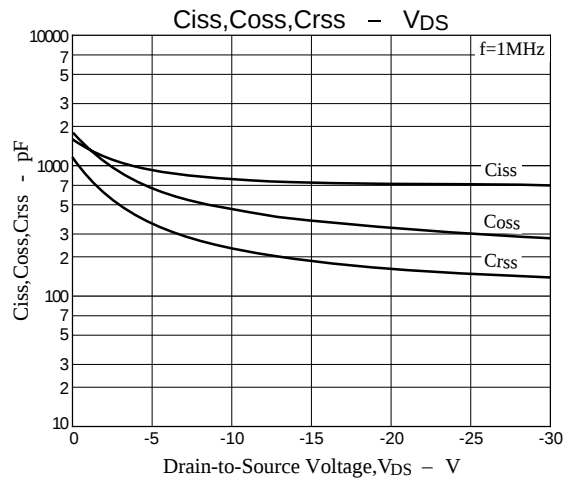
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Switching Time Test Circuit





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